

GILA RIVER BASIN

09512500 AGUA FRIA RIVER NEAR MAYER, AZ

**LOCATION.**--Lat 34°18'55", long 112°03'48", in NW1/4SE1/4 sec. 20, T.11 N., R.3 E., Yavapai County, Hydrologic Unit 15070102, on left bank at Sycamore damsite, 700 ft downstream from Big Bug Creek and 12 mi southeast of Mayer.

**DRAINAGE AREA.**--585 mi<sup>2</sup>.

**PERIOD OF RECORD.**--Jan. 1940 to current year.

**REVISED RECORDS.**--WDR AZ--88--1: 1987. WDR AZ--89--1: Drainage area.

**GAGE.**--Water-stage recorder. Datum of gage is 3,434 ft above sea level.

**REMARKS.**--Records fair, except for estimated daily discharges, which are poor. Diversions above station for mining and irrigation of about 600 acres.

**EXTREMES FOR PERIOD OF RECORD.**--Maximum discharge, 33,100 ft<sup>3</sup>/s Feb. 19, 1980, from rating curve extended above 3,400 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow, gage height, 15.76 ft, from mean of surge, inside highwater mark 16.03 ft, floodmark 18.97 ft; negligible flow at times during the summer months in most previous years when entire flow was diverted to Perry Canal above station and flow past gage was seepage only.

**EXTREMES FOR CURRENT YEAR.**--Peak discharges greater than base discharge of 2,300 ft<sup>3</sup>/s from rating curve extended as explained above, and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec. 29.....	1130	11,800	11.36	Feb. 12.....	0300	*16,700	*12.86
Jan. 3.....	2345	10,300	10.84	Aug. 13.....	2015	2,490	6.67

Minimum daily discharge, 0.33 ft<sup>3</sup>/s Oct. 1--2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.33	0.63	2.9	e74	e33	113	e21	9.7	3.0	1.8	e19	2.1
2	0.33	0.61	2.8	e31	e23	93	e20	9.1	3.0	1.8	e9.3	2.1
3	0.36	0.64	2.7	e750	e18	77	e20	8.8	3.0	1.8	e171	2.2
4	0.46	0.65	3.2	3790	e16	71	e19	8.3	3.0	1.8	e9.7	3.5
5	0.45	0.65	3.8	608	e15	90	e18	7.9	2.8	1.7	23	2.0
6	0.45	0.66	4.4	e290	e14	93	e17	7.5	2.8	1.6	4.7	1.9
7	0.46	0.76	3.7	e243	e14	74	16	7.5	2.8	1.7	18	1.8
8	0.46	259	3.2	e219	e38	66	15	7.3	2.8	1.7	10	1.8
9	0.47	35	2.9	e206	e23	58	15	6.9	2.7	1.7	14	1.7
10	0.48	11	2.8	e203	e16	55	16	6.8	2.8	1.6	9.0	1.7
11	0.51	4.7	2.8	390	1310	48	13	6.5	2.6	1.5	32	1.6
12	0.51	2.8	2.7	504	8240	45	12	6.2	2.6	1.5	15	1.6
13	0.47	2.2	2.7	e220	934	41	12	5.9	e2.5	1.5	154	1.5
14	0.46	2.1	2.7	e140	545	42	11	5.7	e2.5	1.5	74	1.5
15	0.45	2.1	2.6	e88	355	40	11	5.4	e2.4	1.5	94	1.4
16	0.46	2.0	2.2	e47	274	35	10	4.9	e2.4	1.5	e60	1.4
17	0.48	2.0	2.2	e27	204	33	10	4.4	e2.3	2.4	e26	1.4
18	0.48	2.0	2.2	e16	518	32	9.3	4.2	e2.3	1.3	e12	1.4
19	0.48	2.0	2.2	e13	1170	38	9.1	3.9	e2.2	1.3	e7.3	1.4
20	0.46	2.0	2.2	12	843	48	9.2	3.7	e2.2	1.3	e5.6	1.4
21	0.63	23	2.2	11	450	52	9.1	3.5	e2.1	1.2	e4.3	1.4
22	2.2	123	2.5	10	578	45	9.2	3.2	e2.1	1.2	e3.6	1.3
23	0.45	99	2.5	9.8	473	43	9.6	3.1	e2.0	1.2	e3.0	1.3
24	0.40	22	2.3	9.5	316	40	58	3.1	e2.0	1.3	e2.8	1.3
25	0.39	11	2.2	e12	240	39	16	2.9	1.9	2.9	e2.9	1.3
26	0.36	6.9	2.2	e33	189	35	14	2.9	1.9	e2.1	e2.5	1.3
27	0.38	5.0	2.2	e81	178	31	13	3.0	1.9	e1.3	e2.4	1.4
28	7.4	4.2	2.8	e62	139	31	12	3.0	1.9	e1.1	e2.3	1.2
29	15	3.5	3500	e75	---	28	12	3.1	1.8	e1.00	e2.2	1.2
30	0.87	3.1	970	e91	---	26	11	3.2	1.8	e0.99	e2.1	1.1
31	0.72	---	228	e52	---	23	---	3.1	---	e162	2.1	---
TOTAL	37.81	634.20	4773.8	8317.3	17166	1585	447.5	164.7	72.1	208.79	797.8	48.2
MEAN	1.22	21.1	154	268	613	51.1	14.9	5.31	2.40	6.74	25.7	1.61
MAX	15	259	3500	3790	8240	113	58	9.7	3.0	162	171	3.5
MIN	0.33	0.61	2.2	9.5	14	23	9.1	2.9	1.8	0.99	2.1	1.1
AC-FT	75	1260	9470	16500	34050	3140	888	327	143	414	1580	96
CFSM	0.00	0.04	0.26	0.46	1.05	0.09	0.03	0.01	0.00	0.01	0.04	0.00
IN.	0.00	0.04	0.30	0.53	1.09	0.10	0.03	0.01	0.00	0.01	0.05	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	MEAN	8.80	9.14	29.4	34.4	67.8	48.1	19.0	3.28	2.50	10.6	30.7	16.9
MAX	223	146	453	718	1179	389	314	19.6	29.7	48.2	244	187	
(WY)	1973	1988	1966	1993	1980	1991	1941	1941	1940	1955	1951	1970	
MIN	0.14	0.10	0.08	0.07	0.02	0.01	0.00	0.03	0.01	0.15	0.31	0.16	
(WY)	1951	1950	1951	1951	1951	1951	1951	1951	1965	1960	1962	2001	

SUMMARY STATISTICS FOR 2004 CALENDAR YEAR FOR 2005 WATER YEAR WATER YEARS 1940 - 2005

ANNUAL TOTAL		6741.55		34253.20		
ANNUAL MEAN		18.4		93.8		23.3
HIGHEST ANNUAL MEAN						143
LOWEST ANNUAL MEAN						1.45
HIGHEST DAILY MEAN		3500	Dec 29	8240	Feb 12	8240
LOWEST DAILY MEAN		0.02	Jun 27	0.33	Oct 1	0.00
ANNUAL SEVEN-DAY MINIMUM		0.03	Jun 27	0.41	Oct 1	0.00
ANNUAL RUNOFF (AC-FT)		13370		67940		16890
ANNUAL RUNOFF (CFSM)		0.031		0.160		0.040
ANNUAL RUNOFF (INCHES)		0.43		2.18		0.54
10 PERCENT EXCEEDS		5.9		139		19
50 PERCENT EXCEEDS		1.6		3.6		2.1
90 PERCENT EXCEEDS		0.14		1.00		0.30

e Estimated